Concl. E4 FX

exposure control state to the prescribed state by using the adjusting data stored in said memory means.

REMARKS

Applicants respectfully request reconsideration of their application in view of the foregoing amendments and the following remarks.

Status of Claims

Claims 1-16 are pending in this application. Claims 1-16 have been rejected. By this Amendment, independent claims 1, 3, 6 and 9 are amended.

Rejections Under 35 U.S.C. § 103

Claims 1-5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Munson (USP 5,648,814) in view of Iwasaki (USP 5,461,452). (See ¶3 of Office Action)

The invention recited in the independent claims 1, 3, 6 and 9 are variations on the based on the embodiments disclosed in the application. The independent claims essentially include the same characteristic elements of the present invention. Therefore, the following statements regarding the amended claims, while focused on independent claim 1, are applicable to independent claims 3, 6 and 9 as well.

According to the image sensing apparatus recited in claim1 having image sensing means (3) for sensing a subject image formed on an image sensing planc and outputting an image signal corresponding to the subject first, a photographer, in a state that the image sensing means is sensing the subject image (i.e., while the image sensing means is sensing the subject image),

selects any zone on the image sensing plane in which an optimum exposure control state of exposure is desired to be obtained by zone selecting means (21).

Exposure detection is then performed automatically for detecting an exposure condition on the basis of an image signal in a selected zone selected by the zone selecting means.

Exposure control is then performed automatically for controlling exposure based upon the detected exposure condition by the exposure control means (18e).

Memory means (18d) stores control parameters of the exposure control means in response to when an exposure control processing by the exposure control means is completed and an optimum exposure control state is obtained.

Finally, control means automatically controls the exposure control means to fix an exposure control state to the optimum exposure control state by using the control parameters stored in the memory means.

Thus, under the present invention, it is only by the photographer's selection of a zone (i.e., subject) while the image sensing means is sensing the subject image that the optimum exposure control state to the selected zone is fixed appropriately. That is, the optimum exposure control state is locked to the selected zone even if the photographer's visual axis (line-of-sight) goes outside of the selected zone because the control parameters are stored in the memory means.

As described above, the image sensing apparatus recited in claim 1 enables performing optimum exposure control for the selected zone, even in the case where it is difficult for the photographer to accurately discern the state of exposure of the subject by EVF or LCD.

Munson discloses a method and apparatus for optimizing camera function of a

video conferencing system. The camera function is enhanced such that it will operate in an automatic adjustment mode for brightness and color for only a predetermined period of time, and only at power up and reset.

More particularly, in the automatic adjustment mode, Munson optimizes brightness and color for the predetermined period of time after the apparatus is started by power on or reset operation. During this predetermined period of time, optimizing processing is performed such that image quality is the as close to an ideal image as possible. And, after the predetermined period of time, operating parameters for brightness and color are stored (locked down) in the non-volatile memory 34 (see lines 1-60, col. 4).

Therefore, Munson does not disclose, teach or suggest the above described feature of the present invention. That is, Munson does not and cannot store the operating parameters of a desired zone while camera 16 is sensing a subject image. Munson is silent on:

1. detecting an exposure condition on the basis of an image signal in a selected zone selected by a user while the image sensing means is sensing the subject image,

2. storing control parameters in the memory means when an exposure control processing by the exposure control means is completed and an optimum exposure control state is obtained, and

3. performing exposure control processing so as to fix an exposure control state to the optimum exposure control state by using the control parameters.

Regarding Iwasaki, as stated in the previous response, Iwasaki is directed to a visual axis detecting device 110 which detects a visual axis of a photographer and a tracking

device 155 which tracks a position which is near the position of an object detected by device 110 and has approximate spectral characteristics. The exposure and focus are controlled by the tracking process. Iwasaki detects and keeps track of the object in the finder.

However, Iwasaki discloses, teaches or suggests neither to store the optimized exposure control parameters for a selected zone nor to fix the optimum exposure state based upon the stored control parameters.

Therefore, claim 1 is patentable over Munson in view of Iwasaki, even if Munson and Iwasaki are combined. Accordingly, Applicants believe that claims 3-5 are also in condition for allowance.

Claims 6-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Munson in view of Iwasaki and in view of Shimizu (USP 5,400,074). (See ¶4 of Office Action.)

Further to the discussion of Munson and Iwasaki set forth above, as stated in the previous response, Shimizu is directed to correcting a brightness attenuating characteristic of a zoom lens responsive to the position of the zoom lens. Shimizu discloses, teaches or suggests neither to store the optimized exposure control parameters for a selected zone nor to fix the optimum exposure state based upon the stored control parameters.

Therefore, Applicants respectfully submit that claim 6 is patentable over Munson in view of Iwasaki and in view of Shimizu, taken individually or in combination. Accordingly, Applicant believes that claims 7 and 8 are also in condition for allowance.

Claims 9-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Munson in view of Iwasaki and in view of Faltermeier (USP 5,579,156).(See ¶5 of Office

Action.)

Further, claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Munson in view of Iwasaki and Faltermeier and further in view of Arai et al. (USP 5,570,156)("Arai"). (See ¶6 of Office Action.)

Further to the foregoing discussion of Munson and Iwasaki, as set forth in the previous response, Faltermeier is directed to a photomicroscope with a video camera and an exposure time control for a still camera which performs focus control by the auto-focus module 23 of the CCD camera 14, an exposure control by the exposure control 26, and a selection of image area (area position and area size) for exposure metering by track ball 27c of control panel 27.

However, video images stored in the auto-focus module 23 are merely a previous result of a focus detection condition and used for comparing with incoming video images to detect the best focus condition. The claimed invention and the apparatus of Faltermeier differ in at least this regard. That is, data in the auto-focus module 23 is changing every moment. Therefore, data stored in the auto-focus module 23 is not the adjusting data relating to the prescribed state.

Therefore, claim 9 is believed patentable over Munson in view of Iwasaki and in view of Faltermeier, taken alone or in combination. Accordingly, Applicants believe that claims 10-16 are also in condition for allowance on similar grounds.

As discussed above, the cited references do not teach or suggest, either singularly or in combination, the features of the invention recited in the claims. The inventions are

patentably distinct from the cited references and not anticipated. Therefore, Applicants believe that the claims are patentable over the references.

Applicants respectfully submit that, as the foregoing places the independent claims in condition for allowance, the dependent claims are thereby also placed in condition for allowance. However, Applicants reserve the right to address individual rejections of dependent claims should such be necessary.

AUTHORIZATION

Applicant believes no fees are required for this Amendment. Should an additional extension of time be necessary to render this Amendment to be timely filed, such extension is hereby petitioned. The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 1232-4252US1.

In the event that a telephone conference would facilitate prosecution of the instant application in an way, the Examiner is invited to contact the undersigned at the number provided.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
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Dated: May 17, 2000

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